

WHAT IS CLAIMED IS:

1. A light emission display drive method for use with a control signal generation circuit of a light emission display having a driver comprising a  $\Delta\Sigma$  modulator and being capable of performing control at three or more levels in an output brightness value of a light emission element, said method comprising the steps of:

representing an intermediate level of three or more output brightness levels of the light emission element by controlling distribution of occurrence probability of each of the levels by the  $\Delta\Sigma$  modulator.

2. A light emission display drive apparatus having a driver being capable of performing control at three or more levels in an output brightness value of a light emission element, said apparatus comprising:

a read section for reading the brightness value of the light emission element to be represented in a predetermined period; and

a  $\Delta\Sigma$  modulation signal processing section for converting the numeric value read by said read section into distribution of occurrence probability at each level of the output brightness value at the three or more levels.

3. The light emission display drive apparatus as claimed in claim 2 wherein said  $\Delta\Sigma$  modulation signal processing section comprises:

one channel of at least first-order  $\Delta\Sigma$  modulator containing a quantizer having a determination level in the middle of three or more output brightness levels of the light emission element, quantizing the numeric value based on each determination level, and outputting output values corresponding to brightness values at the three or more levels; and

a unit being responsive to output of the  $\Delta\Sigma$  modulator for selecting the brightness values at the three or more levels of the driver.

4. The light emission display drive apparatus as claimed in claim 2 wherein said  $\Delta\Sigma$  modulation signal processing section comprises:

a plurality of separate at least first-order  $\Delta\Sigma$  modulators; and

a distributor for distributing the brightness values to be represented, read by said read section to inputs of the separate  $\Delta\Sigma$  modulators.